

CLAIMS

What is claimed is:

1 1-22. (Cancelled)

1 37. (Amended Once) A shielded housing formed by the method
2 comprising:

3 forming a flat pattern of the shielded housing from a
4 sheet of conductive material, the flat pattern including one
5 or more forward fingers extending from an edge thereof;

6 folding the flat pattern along fold lines to form flaps
7 and sides of the shielded housing; and

8 bending the flat pattern along bend lines to form the
9 one or more forward fingers of the shielded housing.

1 38. (Original) A method of assembling an opto-electronic
2 module comprising:

3 forming a shielded housing with an open end, the
4 shielded housing formed out of a sheet of conductive
5 material to provide electromagnetic radiation shielding and
6 protection of components, the shielded housing including one
7 or more fingers to couple the shielded housing to ground;

8 assembling optical, electrical and optical-electrical
9 components into a chassis to form a subassembly;

10 inserting the subassembly into the open end of the
11 shielded housing, the shielded housing around the
12 subassembly; and

13 closing the open end of the shielded housing to hold
14 the subassembly and the shielded housing assembled together.

1 39. (Original) The method of claim 38 wherein,
2 the shielding housing is a one-piece shielding housing
3 to protect components and to shield electromagnetic
4 radiation.

- 1 40. (Original) The method of claim 38 wherein,
2 the open end is a back side and the inserting includes
3 inserting a front end of the subassembly into the
4 open end of the back side of the shielded housing.
- 1 41. (Original) The method of claim 40 wherein,
2 the closing of the open end of the back side includes
3 folding a left side wing and a right side wing
4 into the open end, and
5 folding a back side flap down over the open end to
6 couple to the left side wing and the right side wing.
- 1 42. (Original) The method of claim 38 wherein,
2 the open end is a front side and the inserting includes
3 inserting a rear end of the subassembly into the open
4 end of the front side of the shielded housing.
- 1 43. (Amended Once) The method of claim 42 wherein,
2 the closing of the open end of the front side includes
3 folding a strap and a septum of the shielded
4 housing, the strap folded across the open end to strap
5 the subassembly into the shielded housing, the septum
6 folded into the open end to couple to the bottom side
7 of the shielded housing to hold the subassembly
8 strapped into the shielded housing.
- 1 44. (Amended Once) The method of claim 38 wherein,
2 the forming of the shielded housing includes
3 stamping a pattern of the shielded housing into
4 the sheet of conductive material, the pattern including
5 the one or more fingers near an edge of the flat sheet,
6 folding the sheet of conductive material along a
7 plurality of fold lines into a multi-sided
8 rectangularly shaped container but for the open end,

9 and
10 bending the one or more fingers into shape.

1 45. (Amended Once) An opto-electronic module formed by the
2 method comprising:

3 forming a shielded housing with an open end, the
4 shielded housing formed out of a sheet of conductive
5 material to provide electromagnetic radiation shielding and
6 protection of components, the shielded housing including one
7 or more forward fingers extending from an edge to couple the
8 shielded housing to ground;

9 assembling optical, electrical and optical-electrical
10 components into a chassis to form a subassembly;

11 inserting the subassembly into the open end of the
12 shielded housing, the shielded housing around the
13 subassembly; and

14 closing the open end of the shielded housing to hold
15 the subassembly and the shielded housing assembled together.

1 46-63. (Cancelled)

1 64. (Original) A method to assemble an EMI shielding module
2 comprising:

3 forming a plurality of substantially equidistant spring
4 fingers along an edge of a flat sheet;

5 forming a strap at the edge of the flat sheet and a
6 septum on the end of the strap;

7 forming a pair of bottom flaps in the flat sheet;

8 folding the flat sheet along axes to form a container
9 substantially in the shape of rectangular box, the
10 rectangular box having a first end and a second end, the
11 first end having the plurality of fingers along each of a
12 plurality of edges and an opening for cable connectors, the
13 second end having a backside flap;

14 folding the strap across the opening for cable
15 connectors; and
16 coupling the septum to inner surfaces of the bottom
17 flaps to hold the strap across the opening.

1 65. (Original) The method of claim 64 wherein,
2 the EMI shielding module is a one-piece shielded
3 housing to protect components and to shield electromagnetic
4 radiation.

1 66. (Original) The method of claim 64 wherein,
2 the EMI shielding module encloses a module chassis
3 frame, the module chassis frame being a central structural
4 support to which one or more optical, electrical and
5 optical-electrical components used in transmission and
6 reception of optical signals are attached.

1 67-76. (Cancelled)

1 77. (Original) A method to assemble an optical transmitter
2 and/or receiver, the method comprising:
3 forming a plurality of fingers, a strap, and a septum
4 along a first edge of a conductive sheet;
5 placing the conductive sheet on a module chassis frame,
6 the module chassis frame having a plurality of components
7 used in transmitting and/or receiving optical signals;
8 folding the conductive sheet around the module chassis
9 frame such that the conductive sheet substantially encloses
10 the module chassis frame but for a frontal opening adjacent
11 to the first edge.

1 78. (Original) The method of claim 77 further comprising:
2 bending the strap and the septum around a front end of
3 the module chassis frame to hold the folded conductive sheet
4 and the module chassis frame together.

- 1 79. (Original) The method of claim 77 wherein,
2 the fingers to electrically ground the folded
3 conductive sheet to a ground of a host system.
- 1 80. (Original) The method of claim 77 wherein,
2 the conductive sheet is one of metal, conductive
3 plastic, and plated plastic.
- 1 81. (Original) The method of claim 77 further comprising:
2 bending the plurality of fingers outward from the
3 frontal opening.
- 1 82. (Original) The method of claim 77 further comprising:
2 lifting the plurality of fingers up from an outer
3 surface of the conductive sheet.
- 1 83-94. (Cancelled)
- 1 95. (New) The shielded housing of claim 37 wherein,
2 the shielding housing is a one-piece shielded housing
3 to protect components and to shield electromagnetic
4 radiation.
- 1 96. (New) The shielded housing of claim 37 wherein,
2 prior to the folding and the bending,
3 placing the flat pattern onto a chassis including an
4 opto-electronic device to process optical and electrical
5 signals, and
6 the folding and the bending of the flat pattern is
7 around the chassis to assemble the chassis and the shielded
8 housing together.
- 1 97. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending of the flat pattern
3 substantially forms the shielded housing but for a front

4 opening, and
5 the method further includes
6 performing final folding and final bending of a strap
7 and a septum to close the front opening.

1 98. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending of the flat pattern
3 substantially forms the shielded housing but for a rear
4 opening, and
5 the method further includes
6 performing final folding and final bending of a back
7 side flap to close the rear opening.

1 99. (New) The shielded housing of claim 37 wherein,
2 the flat pattern further includes a pair of tangs, a
3 pair of tang window openings, a strap, and a septum.

1 100. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending forms the shielded housing
3 including
4 a top side,
5 a first left side flap including a left wing flap,
6 a first right side flap including a right wing flap,
7 a second left side flap including a bottom left side
8 flap,
9 a second right side flap including a bottom right side
10 flap, and
11 a back side flap including a retaining flap.

1 101. (New) The shielded housing of claim 100 wherein,
2 the back side flap includes a pair of tangs,
3 the left wing flap includes a tang window opening to
4 mate with one of the pairs of tangs, and
5 the right wing flap includes a tang window opening to
6 mate with one of the pairs of tangs.

- 1 102. (New) The shielded housing of claim 101 wherein,
2 a strap extends from a front edge of the top side at
3 one end,
4 and a septum extends at an opposite end of the strap.
- 1 103. (New) The shielded housing of claim 100 wherein,
2 the one or more forward fingers extend from a front
3 edge of the top side, the second left side flap, the second
4 right side flap, the bottom left side flap, and the bottom
5 right side flap.
- 1 104. (New) The shielded housing of claim 37 wherein,
2 the one or more forward fingers to couple to a host
3 panel to ground the shielded housing and to seal around an
4 opening in the host panel to avoid electromagnetic radiation
5 leaking out therefrom.
- 1 105. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is formed by etching the sheet of
3 conductive material.
- 1 106. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is by formed stamping the sheet of
3 conductive material.
- 1 107. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is formed by cutting the sheet of
3 conductive material.
- 1 108. (New) The opto-electronic module of claim 45 wherein,
2 the shielding housing is a one-piece shielding housing
3 to protect components and to shield electromagnetic
4 radiation.
- 1 109. (New) The opto-electronic module of claim 45 wherein,

2 the open end is a back side and the inserting includes
3 inserting a front end of the subassembly into the
4 open end of the back side of the shielded housing.

1 110. (New) The opto-electronic module of claim 109 wherein,
2 the closing of the open end of the back side includes
3 folding a left side wing and a right side wing
4 into the open end, and
5 folding a back side flap down over the open end to
6 couple to the left side wing and the right side wing.

1 111. (New) The opto-electronic module of claim 45 wherein,
2 the open end is a front side and the inserting includes
3 inserting a rear end of the subassembly into the open
4 end of the front side of the shielded housing.

1 112. (New) The opto-electronic module of claim 111 wherein,
2 the closing of the open end of the front side includes
3 folding a strap and a septum of the shielded
4 housing, the strap folded across the open end to strap
5 the subassembly into the shielded housing, the septum
6 folded into the open end to couple to the bottom side
7 of the shielded housing to hold the subassembly
8 strapped into the shielded housing.

1 113. (New) The opto-electronic module of claim 45 wherein,
2 the forming of the shielded housing includes
3 stamping a pattern of the shielded housing into
4 the sheet of conductive material, the pattern including
5 the one or more forward fingers extending from the edge
6 of the sheet,
7 folding the sheet of conductive material along a
8 plurality of fold lines into a multi-sided
9 rectangularly shaped container but for the open end,
10 and

11 bending the one or more forward fingers into
12 shape.

1 114. (New) An optical transmitter and/or receiver formed by
2 the method comprising:
3 forming a plurality of fingers, a strap, and a septum
4 along a first edge of a conductive sheet;
5 placing the conductive sheet on a module chassis frame,
6 the module chassis frame having a plurality of components
7 used in transmitting and/or receiving optical signals;
8 folding the conductive sheet around the module chassis
9 frame such that the conductive sheet substantially encloses
10 the module chassis frame but for a frontal opening adjacent
11 to the first edge.

1 115. (New) The optical transmitter and/or receiver of claim
2 114 formed by the method further comprising:
3 bending the strap and the septum around a front end of
4 the module chassis frame to hold the folded conductive sheet
5 and the module chassis frame together.

1 116. (New) The optical transmitter and/or receiver of claim
2 114 wherein,
3 the fingers to electrically ground the folded
4 conductive sheet to a ground of a host system and to seal an
5 opening in a host panel of the host system to avoid
6 electromagnetic radiation leaking out through the opening in
7 the host panel.

1 117. (New) The optical transmitter and/or receiver of claim
2 114 wherein,
3 the conductive sheet is one of metal, conductive
4 plastic, and plated plastic.

1 118. (New) The optical transmitter and/or receiver of claim

2 114 formed by the method further comprising:

3 bending the plurality of fingers outward from the
4 frontal opening to form a plurality of forward fingers
5 extending out therefrom.

1 119. (New) The optical transmitter and/or receiver of claim

2 114 formed by the method further comprising:

3 lifting the plurality of fingers up from an outer
4 surface of the conductive sheet to form a plurality of
5 backward fingers.